REMARKS

The Office Action dated May 4, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-8, 10-11, 14-15, 17, 2-60 and 96-97 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 93-95 have been cancelled. No new matter has been added. Claims 1-17, 19, 21-60, 77-92 and 96-101 are submitted for consideration.

Claims 1-17, 19, 21-60, 77-92 and 96-101 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. According to the Office Action, there is no support in the originally filed specification for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring, as recited in the pending claims. The rejection is traversed.

Page 10, line 17-page 11, line 20 of the original specification describes an embodiment whereby the radio network controller sends a release request to the SGSN. As described on page 10, line 26, the request sent to the SGSN indicates the reason why the bearer should be released. This section of the original specification indicates that a release message 60 is sent to the mobile station and that the mobile station releases the connection based on receipt of this message. Furthermore, Figure 6 shows an alternative embodiment where the radio network controller sends a release radio

connection message to the mobile station. Thus, both embodiments clearly describe the determination of release dependent solely on the parameter monitored by the means of monitoring. This is further supported by the description from page 12, line 20 onwards, which describes that the radio network controller carries out a process to control the release of the bearer for "one or more of the following reasons", these reasons being time, the radio state, the establishment of bearers, movement of the mobile station, the mobile station entering the region controlled by a different radio network controller or a combination of these monitored elements. It would therefore be clear to the one skilled in the relevant art that the limitation is dependent solely on the parameter monitored by the means for monitoring. There is no other discussion that the network controller carries out the process to control the release of the bearer for any other reasons other than those provided within the description. Therefore there is support in the originally filed specification for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring, as recited in the pending claims. Based on the arguments presented above, Applicants request that the rejection be withdrawn.

Claims 1-8, 12-17, 19, 21-23, 31-60, 77-96 and 98-100 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,574,473 to Rinne (hereinafter Rinne) in view of U.S. Patent No. 6,438,378 to Kouno (hereinafter Kouno). According to the Office Action, Rinne teaches all of the elements of claims 1-8, 12-17, 19, 21-23, 31-

60, 77-96 and 98-100 except for teaching that the network element monitors at least one parameter related to the connection between the mobile station and the end element. Therefore, the Office Action combined the teachings of Rinne and Kouno to yield all of the elements of claims 1-8, 12-17, 19, 21-23, 31-60, 77-96 and 98-100. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in claims 1-8, 12-17, 19, 21-23, 31-60, 77-96 and 98-100.

Claim 1, upon which claims 2-8, 19, 21-37, 41-47, 51-57, 77-83, 96-97 depend, recites a network element for use in a communication network. The network element is arranged between a mobile station and an end element and network element including a radio network controller. A connection is established between the mobile station and the end element via the network element. The network element includes a monitoring unit configured to monitor at least one parameter related to the connection between the mobile station and the end element. The network elements also includes a determining unit configured to determine if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the monitoring unit.

Claim 9, upon which claims 10-11, 38-40, 48-50, 58-60 and 84-86 depend, recites a network element for use in a communication network. The network element is arranged between a mobile station and an end element. The network element includes a radio network controller, wherein a connection is established between the mobile station

and the end element via the network element. The network element also includes means for monitoring at least one parameter related to the connection between the mobile station and the end element. The network element also includes means for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring. The at least one parameter includes an elapsed time since the last use of the connection, and the determining means determines that the connection is to be released if the monitoring means indicates that the connection has not been used for a predetermined time.

Claim 12, upon which claim 87 depends, recites a network element for use in a communication network. The network element is arranged between a mobile station and an end element and the network element includes a radio network controller. A connection is established between the mobile station and the end element via the network element. The network element includes means for monitoring at least one parameter related to the connection between the mobile station and the end element. The network element also includes means for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring. The at least one parameter includes a state of the mobile station, and the determining means is arranged to determine if the connection is to be released based on the state of the mobile station determined by the monitoring means.

Claim 13, upon which claims 14-15 and 88-90 depend, recites a network element for use in a communication network. The network element is arranged between a mobile

station and an end element. The network element includes a radio network controller, wherein a connection is established between the mobile station and the end element via the network element. The network element includes means for monitoring at least one parameter related to the connection between the mobile station and the end element and means for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring. The at least one parameter includes a movement of the mobile station, and the determining means is arranged to determine if the connection should be released based on the movement of the mobile station monitored by the monitoring means.

Claim 16, upon which claims 17 and 91-92 depend, recites a network element for use in a communication network. The network element is arranged between a mobile station and an end element and the network element includes a radio network controller. A connection is established between the mobile station and the end element via the network element. The network element includes means for monitoring at least one parameter related to the connection between the mobile station and the end element and means for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring. The at least one parameter includes a location of the mobile station, and the determining means is arranged to determine if the connection should be released based on the location of the mobile station monitored by the monitoring means.

Claim 98 recites a radio network controller for use in a communication network. The radio network controller is arranged between a mobile station and an end element. A connection is established between the mobile station and the end element via the radio network controller. The radio network controller including a processor arranged to monitor at least one parameter of the connection established between the mobile station and the end element and to determine if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter.

Claim 99, upon which claims 100-101 depend, recites a method including establishing a connection between a mobile station and an end element in a communication network through a radio network controller arranged between the mobile station and the end element. The method also includes monitoring, at the radio network controller, at least one parameter related to the connection between the mobile station and the end element. The method further includes determining, at the radio network controller, if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter.

As outlined below, Applicants submit that the cited references of Rinne and Kouno do not teach or suggest the elements of claims 1-8, 12-17, 19, 21-23, 31-60, 77-96 and 98-100.

Rinne discloses a method and system for controlling radio communications between a terminal (MS, TE) and a communications system (CN, GRAN). A communications connection between the system and the terminal is established by an

active radio network controller (RNC) and an active base station (BS). In one embodiment, data communications within the communications connection is directed to the active radio controller by a second radio network controller. See at least the Abstract of Rinne.

Kouno discloses that a mobile communication system actualizing a handoff is constructed by a mobile station, a first base transceiver station having a first radio communication area of a CDMA system, a second base transceiver station having a second radio communication area of a non-CDMA system, receiver stations and a base station controller. The mobile station travels from the first radio communication area to the second radio communication area while communicating with the first base transceiver station. When the mobile station detects an event that an Ec/Io value of a pilot signal transmitted from the first base transceiver station exceeds a first threshold value, the base station controller determines the receiver stations which are located adjacent to the second base transceiver station. Then, the base station controller requests the receiver stations to receive uplink traffic signals respectively transmitted from the mobile station. Within the receiver stations, the base station controller selects a receiver station receiving the uplink traffic signal having a best Eb/No value, which is compared with a second threshold value. When it exceeds the second threshold value, the base station controller requests the mobile station to perform hard handoff from the first base transceiver station to the second base transceiver station while simultaneously requesting the second base transceiver station to enable handoff. Thus, it is possible to broaden the radio

communication area of the CDMA system in a direction toward the service area of the non-CDMA system at a hard handoff mode. See at least the Abstract of Kouno.

Applicants submit that the combination of Rinne and Kouno does not teach or suggest the combination of elements recited in the presently pending claims. The Office Action acknowledged that Rinne does not disclose or suggest a network element including means for monitoring the connections established between the mobile station and the end element, as recited in the presently pending claims. Applicants submit that Rinne does not carry out any monitoring of the signal but is directed to only carrying out a handover action upon receiving a request to perform a handover.

Each of the presently pending claims also recite that the network elements also includes means for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring. Although Rinne discloses determining if a connection between the end element and the mobile station is to be released, Rinne does not teach or suggest releasing the connection dependent solely on the at least one parameter monitored by the means for monitoring, as recited in the presently pending claims.

Kouno does not cure the deficiencies of Rinne, as outlined above. Kouno discloses a mobile communication system for controlling handoff between base transceiver stations. Specifically, Kouno describes a two stage process. Firstly, Col. 3, line 64 to Col. 4, line 43 of Kouno discloses that the mobile station monitors the ratio between the "energy of pilot signal per one PN chip" and the "energy of interference

waves per one Hz in the reception band" (Ec/Io) for base transceiver stations. According to Kouno, if the mobile station detects that the value exceeds a threshold it reports this to the base station controller (BSC) via the currently selected base transceiver station (BTS), and instructs the BSC to receive uplink signals via these selected BTS. Secondly, as described on Col. 4, lines 17-42 of Kouno, the BSC selects the receiver station (BTS), from the number currently being received by the first stage, which receives the uplink traffic signal of the best quality among the indicated receiver stations. Therefore, although Kouno discloses means for monitoring the connection between the mobile station and the end point, there is no disclosure or suggestion in Kouno of determining if the connection established between the mobile station and the end element is to be released solely on the at least one parameter monitored by the monitoring means, as recited in the presently pending claims.

In Kouno, the process is not determined solely on the at least one parameter monitored relating to the connection between the mobile station and the end element, as recited in the presently pending claims. As is described on Col. 4 lines 24-31, the BSC measures and compares the Eb/No values for several `connections' from the mobile station to the BTS and makes the selection from this value. Thus, in Kouno, the apparatus monitors and determines that a handover is to be initiated using more than just the connection between the mobile station and the end element. Kouno carries out a determination dependent on the measurement of the Eb/No value of the connection between the current BTS and mobile station, (the connection between the mobile station

and the end point) and also dependent on the monitored connections from at least one further BTS and mobile station. In Kouno, the number of monitored `connections' from the at least one further BTS and mobile station, is triggered by the first step in Kouno. Thus, in Kouno, the step of determining is further dependent on the parameters monitored by the mobile station.

The Office Action indicated that Kouno teaches that the network element is arranged to release the connection when the determining means determines that the connection is to be release, as recited in at least claim 2. The connection which the Office Action is claiming is released in Kouno is one at the end of a handover process (the same handover process carried out in Rinne). As would be understood by a person of ordinary skill in the art, a handover process should only terminate a connection once a handover decision has been made and also when a confirmation is received that a new connection has successfully been created and reported. If a confirmation is not received, then the connection in any conventional system will not be released as doing so would disconnect the current user, leading to dropped communications.

Hence, although Kouno describes, in Col. 1, lines 26-32, Col. 3, lines 35-39 and Col. 18, lines 47-50, a modified handover process, such as implemented in Rinne, Kouno still describes a handover process which disconnects the communication only after measuring the signal strengths of both the active connection and any potential connections, receiving a handover initialization message or confirmation of an initialized handover process is being carried out and receiving a signal indicating that a handover

has been completed - i.e. a new connection has been made and that the old connection can be released. Therefore, there is a significant and clear difference between the current invention and any handover process, as disclosed in Rinne and Kouno. Based on these differences, even if a person skilled in the art were to combine the teachings of Rinne and Kouno, the combination would not yield the combination of elements recited in the presently pending claims.

Furthermore neither Rinne nor Kouno individually or combined disclose a radio network controller, as recited in the presently pending claims. Based on the discussion above, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Rinne nor Kouno, whether taken singly or combined, teaches or suggests each feature of claims 1-8, 12-17, 19, 21-23, 31-60, 77-96 and 98-100.

Claims 9-11, 24-30 and 101 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rinne in view of U.S. Patent No. 4,443,875 to Blausten (hereinafter Blausten). According to the Office Action, Rinne teaches all of the elements of claims 9-11, 24-30 and 101 except for teaching that at least one parameter includes an elapsed time since the last use of the connection, and the determining means determines that the connection is to be released if the monitoring means indicates that the connection has not been used for a predetermined time. Therefore, the Office Action combined Rinne and Blausten to yield all of the elements of claims 9-11, 24-30 and 101. The rejection is

traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in claims 9-11, 24-30 and 101.

Rinne have been discussed above. As noted above, Rinne does not teach or suggest the combination of features recited in claims 9-11, 24-30 and 101. Specifically, Rinne does not teach or suggest means for monitoring at least one parameter related to the connection between the mobile station and the end element and means for determining if the connection between the end element and the mobile station is to be released dependent solely on the at least one parameter monitored by the means for monitoring, as recited in claims 9-11, 24-30 and 101. Blausten does not cure these deficiencies of Rinne.

As acknowledged in the Office Action, Rinne also does not teach or suggest the at least one parameter includes an elapsed time since the last use of the connection, and the determining means determines that the connection is to be released if the monitoring means indicates that the connection has not been used for a predetermined time. The Office Action cited Blausten to cure this deficiency of Rinne. Specifically, the Office Action alleged that in Blausten a determination of the elapsed time as a parameter can be found.

Blausten describes a method and apparatus for providing a call clearance system in a packet switched data network. The apparatus in Blausten detects a request for an originating terminal to end a call and delays the request for a predetermined time period in order to prevent the end of call message arriving before any delayed data. However,

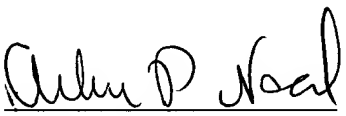
there is no teaching or suggestion in Blausten of monitoring a 'connection' for a parameter of an elapsed time since the last use of the connection, as recited in claims 9-11, 24-30 and 101. In Blausten, once the apparatus receives the request to terminate the call there is no further monitoring of the communication. Rather, in Blausten, the communication is automatically ended after a predetermined time period. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Rinne nor Blausten, whether taken singly or combined, teaches or suggests each feature of claims 9-11, 24-30 and 101.

As noted previously, claims 1-17, 19, 21-60, 77-92 and 96-101 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-17, 19, 21-60, 77-92 and 96-101 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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